

OUTDOOR WATERTIGHT LAMP

BACKGROUND OF THE INVENTION

(a) Field of the invention

5 The present invention relates to an outdoor lamp with an improved watertight mechanism. Its peculiar watertight structure is formed by a lower-cap and an upper-cap, wherein a slope shaped on an anti-water rim of the upper-cap to facilitate rainwater slipping, out of the slope and gravity, directly to the ground. A convex bottom is further formed on the
10 anti-water rim of the upper-cap causing rainwater, being unable to flow inwards cross the convex, to fall directly to the ground, thereby preventing rainwater from streaming to the lower-cap. Combining the slope and convex thereof, rainwater flowing into a joint surface thereby being reduced significantly. Additionally, the joint surface is formed with
15 a two-step structure to minimize capillarity, thereby minimizing rainwater permeating inside.

(b) Description of the Prior Art

 The watertight structure of a conventional outdoor lamp is usually constructed with merely a seal between joint surfaces, mostly a single
20 step structure thereon. As a result of capillarity, rainwater permeates

through the joint seam damping inside to the detriment of the lamp.

As such, how to invent a product excluding the defects inherent in conventional outdoor lamp is the technical difficulty that the inventor hopes to resolve with the present invention.

5 SUMMARY OF THE INVENTION

The present invention relates to an outdoor lamp with an improved watertight mechanism. Its peculiar watertight structure is formed by a lower-cap and an upper-cap, wherein a slope shaped on an anti-water rim of the upper-cap to facilitate rainwater slipping, out of the slope and gravity, directly to the ground. A convex bottom is also formed on the anti-water rim of the upper-cap causing rainwater, being unable to flow inwards cross the convex, to fall directly to the ground, thereby preventing rainwater from streaming to the lower-cap. Combining the slope and convex thereof, rainwater flowing into a joint surface thereby being reduced significantly. Additionally, the joint surface is formed with a two-step structure to attenuate capillarity, thereby minimizing rainwater permeating inside.

To enable a further understanding of the said objectives and the technological methods of the invention herein, the brief description of the drawings below is followed by the detailed description of the preferred

embodiments.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 shows the perspective view of the present invention.

FIG. 2 shows an exploded elevational view of the present invention.

5 FIG. 3 shows an enlarged cross-section of the joint.

FIG. 4 shows another enlarged cross-section of the joint.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1 ~ 3. The present invention is an outdoor watertight lamp A comprising

10 an upper-cap B including a screw bolt hole B1, an anti-water rim B2, a slope surface B21, a convex B22, and a joint surface B23;

a lower-cap C having a screw bolt hole C1, an anti-water rim C2, and a joint surface C21;

a lamp base D having a screw hole D4;

15 by assembling screw bolts D2 and D3, with a screw nut E3 penetrating through the screw hole D4 on the lamp base D, and then assembling the screw bolts D1 and D2 with a screw nut E2, wherein the screw bolt D1 penetrating through the screw bolt hole B1 and fastened, through a seal F, by the screw nut E1; likewise, the screw bolt D3
20 penetrating through the screw bolt hole C1 and fastened, through a seal

F, by a screw nut E4;

Referring to FIG. 3 and 4. Watertight joint made by joining the anti-water rim B2 on the upper-cap B with the anti-water rim C2 on the lower-cap C and by adding a slope B21 on the anti-water rim B2 of the upper-cap B, thereby facilitating rainwater G to glide, out of the slope B21 and gravity, directly to the ground. A convex B22 is further formed on a bottom of the anti-water rim B2 of the upper-cap B, causing rainwater G, being unable to flow inwards cross the convex B22, to fall directly to the ground, thereby preventing rainwater G from streaming to the lower-cap C. Combining the slope B21 and convex B22 thereof, rainwater G flowing into a joint surface B23 and C21 thereby being reduced significantly. Additionally, the joint surface B23 and C21 is formed with a two-step structure to minimize capillarity, thereby barricading rainwater G permeating inside the lamp A to the detriment of the lamp base D.

To reveal in more detail in present invention's advancement and practicality, a summary is given below,

Disadvantage of a conventional outdoor lamp:

1. Rainwater permeates through the joint seam causing a moisture environment inside to the detriment of the lamp.

Advantages of the present invention:

1. A multi-step structure is formed on the joint surface of the upper-cap and lower-cap, thereby preventing rainwater from permeating inside;
2. A convex is formed outside the joint surface preventing rainwater
5 from flowing inwards, thereby enhancing watertight performance.
3. Advancement and practicality.
4. Enhancing industry competitiveness.

It is of course to be understood that the embodiment described herein is merely illustrative of the principles of the invention and that a wide
10 variety of modifications thereto may be effected by persons skilled in the art without departing from the spirit and scope of the invention as set forth in the following claims.